What is claimed is

1. An image processing apparatus comprising:

an acquisition unit for acquiring image data that includes a plurality of pixels;

a first-judgment unit for setting each of the plurality of pixels as a first target pixel and performing a first-judgment as to whether the first target pixel is an isolated pixel for a judgment of a halftone-dot area;

a first-judgment result correction unit for correcting results of the first-judgment, to determine isolated pixels to be used in a second-judgment; and

a second-judgment unit for setting each of the plurality of pixels as a second target pixel and performing the second-judgment as to whether the second target pixel is in a halftone-dot area, by referring to the corrected results of the first-judgment.

2. The image processing apparatus of Claim 1,

wherein the second-judgment unit counts a number of isolated pixels determined to be used in the second-judgment, in a predetermined area including the second target pixel, by referring to the corrected results of the first-judgment, and compares the count number and a predetermined threshold, to judge whether the second target pixel is in a halftone-dot

area.

3. The image processing apparatus of Claim 1, wherein the first-judgment result correction unit corrects a result of the first-judgment relating to the first target pixel, by referring to results of the first-judgment relating to a plurality of pixels present at predetermined positions with respect to the first target pixel.

4. The image processing apparatus of Claim 3, wherein when the first-judgment unit judges that a plurality of pixels positioned in a group are isolated pixels, the first-judgment result correction unit performs such correction processing that decreases a number of isolated pixels to be used in the second-judgment.

5. The image processing apparatus of Claim 1, wherein the first-judgment result correction unit includes a filter with a predetermined pattern that is used when correcting the results of the first-judgment.

6. The image processing apparatus of Claim 1, further comprising

an image correction unit for correcting the image data, in accordance with results of the second-judgment.

7. The image processing apparatus of Claim 6, wherein when the second-judgment unit judges that the second target pixel is in a halftone-dot area, the image correction unit performs, on the second target pixel, image correction processing suitable for a pixel in a halftone-dot area.

8. The image processing apparatus of Claim 6, further comprising

a halftone-dot area extension unit for extending a halftone-dot area that is composed of pixels whose judgment results of the second-judgment unit are affirmative,

wherein the image correction unit corrects a part of the image data that corresponds to the halftone-dot area extended by the halftone-dot area extension unit.

9. An image forming apparatus, comprising:

an acquisition unit for acquiring image data that includes a plurality of pixels;

a first-judgment unit for setting each of the plurality of pixels as a first target pixel and performing a first-judgment as to whether the first target pixel is an isolated pixel for a judgment of a halftone-dot area;

a first-judgment result correction unit for correcting results of the first-judgment, to determined isolated pixels

to be used in a second-judgment;

a second-judgment unit for setting each of the plurality of pixels as a second target pixel and performing the second-judgment as to whether the second target pixel is in a halftone-dot area, by referring to the corrected results of the first-judgment;

an image correction unit for correcting the image data in accordance with results of the second-judgment; and

an image forming unit for forming an image based on the image data corrected by the image correction unit.

10. An image processing method, comprising:

an acquisition step for acquiring image data that includes a plurality of pixels;

a first-judgment step for setting each of the plurality of pixels as a first target pixel and performing a first-judgment as to whether the first target pixel is an isolated pixel for a judgment of a halftone-dot area;

a first-judgment result correction step for correcting results of the first-judgment, to determine isolated pixels to be used in a second-judgment; and

a second-judgment step for setting each of the plurality of pixels as a second target pixel and performing the second-judgment as to whether the second target pixel is in a halftone-dot area, by referring to the corrected results

of the first-judgment.

11. The image processing method of Claim 10, wherein in the first-judgment result correction step, a result of the first-judgment relating to the first target pixel is corrected by referring to results of the first-judgment relating to a plurality of pixels present at predetermined positions with respect to the first target pixel.

12. The image processing method of Claim 10, further comprising

an image correction step for correcting the image data, in accordance with results of the second-judgment.